CHEMRAZ® 655

High Temperature Perfluoroelastomer

SEALING SOLUTIONS

Chemraz® 655 is Greene, Tweed's high-temperature off-white perfluoroelastomer. Specifically developed for wafer processes with operating temperatures up to 315ºC (600°F), Chemraz 655 provides excellent chemical resistance with minimal particle generation. Available in a wide range of geometries and cross sections, this material offers the diversity required for a variety of dynamic or static dry processing applications.

FEATURES & BENEFITS

- Service temperatures up to 315ºC (600°F)
- Excellent balance of physical properties
- Minimal contamination
- Withstands a variety of aggressive chemicals
- Unlimited design flexibility

APPLICATIONS

- Door seals
- Slit valves
- Window seals
- Isolator valve seals
- Lid seals
- Gas Inlet seals
- KF fitting seals
- Chamber seals
- Valve seals
- Endpoint windows

RECOMMENDED PROCESS APPLICATIONS

- **Rapid thermal processing (RTP)**
- **Oxidation (LPCVD)/Diffusion**
- Deposition (CVD, PECVD, RPCVD, HDPCVD, APCVD, SACVD, DCVD)
- Dry plasma etch
- Remote plasma cleans
- Dry ashing
- Implant anneal

TYPICAL PROPERTIES*

Physical	Typical Value
Color	Off-White
Polymer Type	Perfluoroelastomer
Specific Gravity	2.11
Hardness, Shore A	82
Mechanical	
Tensile Strength, psi (kPa)	1870 (12893)
Elongation, %	190
Tensile Modulus, psi (kPa)	
Modulus @ 50% Elongation	600 (4137)
Modulus @ 100% Elongation	1040 (7170)
Compression Set: 70 hours @ 204ºC @ 25% Deflection, %	15
Compression Set: 70 hours @ 315ºC @ 25% Deflection, %	45
Thermal	
Service Temperature Range	-20ºC to 315ºC (-4°F to 600°F)

* Note: Unless otherwise indicated, all tests are performed on AS 568A (-214) O-rings.

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

Prior to actual use it is recommended compatibility tests be run to determine suitability in a specific application. This is critical where failure could result in injury or damage. A regular program of inspection and replacement should be implemented. Greene, Tweed technical personnel are available to help with a recommendation.

Contact Us

Greene, Tweed
Semiconductor
Kulpsville, PA, USA

Tel: +1.215.256.9521
Fax: +1.215.256.0189

www.gtsemi.com

chemraz® 655 / product data

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